

WHAT IS CLAIMED IS

1. An imaging lens system used for forming an image of an object on an image taking surface of a solid image sensor element, comprising

a first lens which is a meniscus lens with its convex face turned toward the object side and having a positive power, a diaphragm, and a second lens which is a meniscus lens with its concave face turned toward the object side, said first lens, said diaphragm and said second lens being disposed sequentially in the named order from the side of the object toward an image surface.

2. An imaging lens system comprising a first lens which is a meniscus lens with its convex face turned toward the object side and having a positive power, and which has a main power, a diaphragm, and a second lens which is a meniscus lens with its concave face turned toward the object side, said first lens, said diaphragm and said second lens being disposed sequentially in the named order from the side of the object toward an image surface, and wherein the following conditional expressions (1) and (2) are satisfied:

$$d_2/f_1 < 0.1 \quad (1)$$

$$-4.0 < \Phi_{\text{air}}/\Phi < -2.5 \quad (2)$$

wherein d_2 is a distance on an optical axis between said first and second lenses; f_1 is a focal length of the entire lens system; Φ is a power of the entire lens system; Φ_{air} is a power of an air lens comprising air existing between said first and second lenses [if a curvature of a face of said first lens on the side of the

image surface is represented by c_2 ; a curvature of a face of said second lens on the side of the object is represented by C_3 ; a refraction index of said first lens for refraction of light having a wavelength used in design is represented by n_1 ; and a refraction index of said second lens for refraction of light having a wavelength used in design is represented by n_3 , Φ_{air} is represented by $\Phi_{air} = c_2 (1 - n_1) + c_3 (n_3 - 1) + c_2 c_3 (n_1 - 1) (n_3 - 1) d_2$.

3. An imaging lens system according to claim 2, wherein the following conditional expression (3) is satisfied:

$$0.4 < (d_1 + d_2 + d_3)/f_1 < 0.7 \quad (3)$$

wherein d_1 is a thickness of the center of said first lens, and d_3 is a thickness of the center of said second lens.

4. An imaging lens system used for forming an image of an object on an image taking surface of a solid image sensor element, comprising

a first lens made of a resin, which is a meniscus lens with its convex face turned toward the object side and having a positive power, a diaphragm, and a second lens made of a resin, which is a meniscus lens with its convex face turned toward an image surface side, said first lens, said diaphragm and said second lens being disposed sequentially in the named order from the side of the object toward the image surface, and wherein the following conditional expressions (4) to (9) are satisfied:

$$1.25 \times f_1 \geq L \geq 0.8 \times f_1 \quad (4)$$

$$1.26 \times f_1 \geq f_1 \geq 0.85 \times f_1 \quad (5)$$

$$0.8 \times d_1 \geq d_2 \geq 0.35 \times d_1 \quad (6)$$

$$L \leq 6.25 \text{ mm} \quad (7)$$

$$d_1 \geq 0.225 \times f_l \quad (8)$$

$$d_3 \geq 0.225 \times f_l \quad (9)$$

wherein L is a distance of the entire length of the lens system [a distance from a surface of said first lens on the side of the object to the image taking surface (a length in air)]; f_l is a focal length of the entire lens system; f_1 is a focal length of said first lens; d_1 is a thickness of the center of said first lens; d_2 is a distance between said first and second lenses on an optical axis; and d_3 is a thickness of the center of said second lens.

5. An imaging lens system according to claim 4, wherein said second lens is formed as a meniscus lens having a positive power.

6. An imaging lens system according to claim 4 or 5, wherein said diaphragm may be disposed to lie at a location displaced toward said first lens from a middle point of a line segment on the optical axis, which connects a surface of said first lens on the side of an image surface and a surface of said second lens on the side of the object to each other.

7. An imaging lens system according to any of claims 4 to 6, wherein a brightness of an optical system is defined so that the following expression is established:

$$4.0 > F_{no} \quad (10)$$

wherein F_{no} is a brightness of the optical system.

8. An imaging lens system according to any of claims 4 to 7, wherein an angle of diagonal view is defined so that the following expression is established:

$$2\omega \geq 50^\circ \quad (11)$$

wherein 2ω is an angle of diagonal view.

9. An imaging lens system according to any of claims 4 to 8, wherein the following conditional expression is satisfied:

$$F1 \leq 5.0 \text{ mm} \quad (12)$$